# Nilabja Mitra

Android developer

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#### **SUMMARY**

Android Developer with 1+ years of experience building scalable, high-performance mobile apps using Kotlin, Android Jetpack, and MVVM architecture. Skilled in Android SDKs, API integration, Firebase, and Room Database, with a proven record of improving responsiveness and user engagement by 80% through optimized UI/UX and push notifications. Adapt at automation testing using JUnit and Espresso to ensure code reliability and quality. Experienced in JSON parsing, SDK integration.

## **SKILLS**

Relevant Skills : Android Jetpack, Automation, JSON Programming Languages : Kotlin, Java, Python, JavaScript

Platforms & Tools : GCP, Firebase, vs code, Android studio

Mobile Development : Android SDK, Material Design, RESTful APIs, CI/CD, Debugging, Unit Testing Frameworks & Libraries : Jetpack Compose, MVVM, Retrofit, LiveData, Navigation Component, WorkManager

**Databases**: Room Database, MySQL, Firebase Realtime DB

**EXPERIENCE** 

# Native Android Developer, Tvam Technologies Pvt.Ltd, Bangalore, India

Dec 2024 — May 2025

- Integrated RESTful APIs with Retrofit and utilized Room Database for effective local data caching, JSON parsing, and offline support to enhance mobile app scalability.
- Implemented MVVM architecture with ViewModel and LiveData to ensure clean separation of concerns and streamlined UI logic while integrating SDKs for new feature development.
- Enhanced user engagement by incorporating Firebase Cloud Messaging (FCM) for real-time push notifications, boosting user retention by over 80% and improving app responsiveness.

## Software developer, Nextpayments pvt ltd, Bangalore, India

Jun 2024 — Dec 2024

- Spearheaded the development of core modules for a real-time crypto-UPI hybrid payment application, integrating SDKs and automation tools to facilitate secure microtransactions monthly.
- Integrated RBI-compliant APIs for real-time payments and automated KYC verification using JSON data structures, improving onboarding time by 40% and ensuring regulatory compliance.
- Participated in sprint reviews, architecture discussions, and code reviews in an Agile team, applying Junit and Espresso for automation testing to reduce bug rates by 25% per sprint.

## **PROJECTS**

## **Todo List App**

- Built a high-performance task management app using Kotlin, Firebase, and Android Jetpack to enhance responsiveness and scalability of mobile apps.
- Developed an intuitive Android UI with Kotlin and XML, integrating Android SDKs and JSON parsing to handle 500+ tasks per user through Firebase Realtime Database with real-time synchronization.
- Integrated Firebase Cloud Messaging (FCM) to deliver task reminders and automated notifications, leading to an 80% increase in daily active users (DAU) and improving user engagement before Google Play publishing.
- Implemented CRUD operations with error handling, unit tests using Junit and Espresso, and offline sync to ensure 99.9% data reliability across mobile apps.

#### Weather App

- Integrated Open WeatherMap API via Retrofit to fetch real-time weather data for 100+ cities globally, with an average response time under 500ms.
- Enabled GPS-based location tracking using Android Location Services and Android Jetpack libraries to boost accuracy and responsiveness of weather predictions by 95%.
- Added error handling and retry mechanisms to maintain uptime > 99% even during low connectivity.
- Used SharedPreferences with JSON data caching to reduce API calls by 60%, improve app load time by 40%, and enhance performance of mobile apps at scale.

## **PUBLICATIONS**

## Nano-Robot for Pest Detection and Soil Health Monitoring

Developed an IoT and ML-based nano-robotic system for real-time soil health monitoring and automated pest detection in agriculture, using advanced sensors and deep learning to enable proactive, sustainable farm management and reduce chemical use.

## **CERTIFICATIONS**

## **Certified Kotlin Android Development EDUCATION**

New Horizon College of Engineering, Bengaluru, India - Bachelor of Engineering, Mechanical Engineering -

GPA: 6.97

peers.

**EXTRACURRICULAR** 

# President, Rotaract Club, New Horizon College of Engineering

Sep 2024 – Sep 2025

Led a 30+ member student organization, coordinating events, workshops, and community initiatives that impacted 500+ participants. Mentored junior members by providing guidance on project execution, leadership skills, and teamwork. Fostered collaboration across diverse teams, ensuring smooth execution of social, cultural, and technical events. Represented the club in inter-college forums, strengthening partnerships and enhancing the organization's visibility. Organized training sessions and knowledge-sharing activities to build communication and problem-solving skills among